Trond Kvamsdal

List of Publications by Year
in descending order

66	2,714	279701	182361
papers	citations	23 h-index	51 g-index

69	69	69	1872
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Digital Twin: Values, Challenges and Enablers From a Modeling Perspective. IEEE Access, 2020, 8, 21980-22012.	2.6	746
2	Computational vascular fluidâ€“structure interaction: methodology and application to cerebral aneurysms. Biomechanics and Modeling in Mechanobiology, 2010, 9, 481-498.	1.4	210
3	Isogeometric analysis using LR B-splines. Computer Methods in Applied Mechanics and Engineering, 2014, 269, 471-514.	3.4	208
4	A fully-coupled fluid-structure interaction simulation of cerebral aneurysms. Computational Mechanics, 2010, 46, 3-16.	2.2	206
5	Determination of Wall Tension in Cerebral Artery Aneurysms by Numerical Simulation. Stroke, 2008, 39, 3172-3178.	1.0	158
6	Impact of Urban Density and Building Height on Energy Use in Cities. Energy Procedia, 2016, 96, 800-814.	1.8	96
7	Isogeometric rotation-free bending-stabilized cables: Statics, dynamics, bending strips and coupling with shells. Computer Methods in Applied Mechanics and Engineering, 2013, 263, 127-143.	3.4	84
8	Physics guided machine learning using simplified theories. Physics of Fluids, 2021, 33, .	1.6	71
9	Isogeometric divergence-conforming variational multiscale formulation of incompressible turbulent flows. Computer Methods in Applied Mechanics and Engineering, 2017, 316, 859-879.	3.4	60
10	Superconvergent patch recovery and a posteriori error estimation technique in adaptive isogeometric analysis. Computer Methods in Applied Mechanics and Engineering, 2017, 316, 1086-1156.	3.4	49
11	Effect of Turbulence Intensity on the Performance of an Offshore Vertical Axis Wind Turbine. Energy Procedia, 2015, 80, 312-320.	1.8	47
12	On the similarities and differences between Classical Hierarchical, Truncated Hierarchical and LR B-splines. Computer Methods in Applied Mechanics and Engineering, 2015, 291, 64-101.	3.4	45
13	Isogeometric analysis of THM coupled processes in ground freezing. Computers and Geotechnics, 2017, 88, 129-145.	2.3	42
14	Error estimation based on Superconvergent Patch Recovery using statically admissible stress fields. International Journal for Numerical Methods in Engineering, 1998, 42, 443-472.	1.5	40
15	A simple embedded discrete fractureâ€“matrix model for a coupled flow and transport problem in porous media. Computer Methods in Applied Mechanics and Engineering, 2019, 343, 572-601.	3.4	40
16	Divergence-conforming discretization for Stokes problem on locally refined meshes using LR B-splines. Computer Methods in Applied Mechanics and Engineering, 2015, 293, 38-70.	3.4	39
17	Simulation of airflow past a 2D NACA0015 airfoil using an isogeometric incompressible Navierâ€“Stokes solver with the Spalartâ€“Allmaras turbulence model. Computer Methods in Applied Mechanics and Engineering, 2015, 290, 183-208.	3.4	36
18	Goal oriented error estimators for Stokes equations based on variationally consistent postprocessing. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 613-633.	3.4	31

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19	Simple a posteriori error estimators in adaptive isogeometric analysis. Computers and Mathematics With Applications, 2015, 70, 1555-1582.	1.4	28
20	Implementation and comparison of three isogeometric Navierâ€“Stokes solvers applied to simulation of flow past a fixed 2D NACA0012 airfoil at high Reynolds number. Computer Methods in Applied Mechanics and Engineering, 2015, 284, 664-688.	3.4	26
21	Hybrid analysis and modeling, eclecticism, and multifidelity computing toward digital twin revolution. GAMM Mitteilungen, 2021, 44, e202100007.	2.7	26
22	Isogeometric boundary element method for acoustic scattering by a submarine. Computer Methods in Applied Mechanics and Engineering, 2020, 359, 112670.	3.4	24
23	Model fusion with physics-guided machine learning: Projection-based reduced-order modeling. Physics of Fluids, 2021, 33, .	1.6	24
24	Adaptive isogeometric finite element analysis of steadyâ€state groundwater flow. International Journal for Numerical and Analytical Methods in Geomechanics, 2016, 40, 738-765.	1.7	23
25	Postprocessing of non-conservative flux for compatibility with transport in heterogeneous media. Computer Methods in Applied Mechanics and Engineering, 2017, 315, 799-830.	3.4	21
26	Superconvergent Patch Recovery for plate problems using statically admissible stress resultant fields. International Journal for Numerical Methods in Engineering, 1999, 44, 697-727.	1.5	20
27	Numerical investigation of modeling frameworks and geometric approximations on NREL 5â€MW wind turbine. Renewable Energy, 2019, 132, 1058-1075.	4.3	20
28	Industrial scale turbine and associated wake development -comparison of RANS based Actuator Line Vs Sliding Mesh Interface Vs Multiple Reference Frame method.. Energy Procedia, 2017, 137, 487-496.	1.8	17
29	Finite-Volume High-Fidelity Simulation Combined with Finite-Element-Based Reduced-Order Modeling of Incompressible Flow Problems. Energies, 2019, 12, 1271.	1.6	17
30	Deep neural network enabled corrective source term approach to hybrid analysis and modeling. Neural Networks, 2022, 146, 181-199.	3.3	17
31	Numerical benchmarking of fluidâ€“structure interaction: An isogeometric finite element approach. Ocean Engineering, 2016, 124, 324-339.	1.9	16
32	Multi-fidelity information fusion with concatenated neural networks. Scientific Reports, 2022, 12, 5900.	1.6	16
33	Parallelization in time for thermoâ€viscoplastic problems in extrusion of aluminium. International Journal for Numerical Methods in Engineering, 2009, 79, 576-598.	1.5	15
34	Investigation of the Impact of Wakes and Stratification on the Performance of an Onshore Wind Farm. Energy Procedia, 2015, 80, 302-311.	1.8	15
35	Fast divergence-conforming reduced basis methods for steady Navierâ€“Stokes flow. Computer Methods in Applied Mechanics and Engineering, 2019, 346, 486-512.	3.4	15
36	A full-scale 3D Vs 2.5D Vs 2D analysis of flow pattern and forces for an industrial-scale 5MW NREL reference wind-turbine.. Energy Procedia, 2017, 137, 477-486.	1.8	13

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37	LES and RANS simulation of onshore Bessaker wind farm: analysing terrain and wake effects on wind farm performance. Journal of Physics: Conference Series, 2015, 625, 012032.	0.3	11
38	Numerical Analysis of NREL 5MW Wind Turbine: A Study Towards a Better Understanding of Wake Characteristic and Torque Generation Mechanism. Journal of Physics: Conference Series, 2016, 753, 032059.	0.3	11
39	Post-processing and visualization techniques for isogeometric analysis results. Computer Methods in Applied Mechanics and Engineering, 2017, 316, 880-943.	3.4	11
40	A Multiscale Wind and Power Forecast System for Wind Farms. Energy Procedia, 2014, 53, 290-299.	1.8	10
41	A Multiscale Approach to Micrositing of Wind Turbines. Energy Procedia, 2012, 14, 1458-1463.	1.8	9
42	A Comprehensive Simulation Methodology for Fluid-structure Interaction of Offshore Wind Turbines. Energy Procedia, 2014, 53, 135-145.	1.8	9
43	Isogeometric Methods for CFD and FSI-Simulation of Flow around Turbine Blades. Energy Procedia, 2015, 80, 442-449.	1.8	9
44	A step towards reduced order modelling of flow characterized by wakes using Proper Orthogonal Decomposition. Energy Procedia, 2017, 137, 452-459.	1.8	9
45	Quasi-Static & Dynamic Numerical Modeling of Full Scale NREL 5MW Wind Turbine. Energy Procedia, 2017, 137, 460-467.	1.8	9
46	Numerical assessment of RANS turbulence models for the development of data driven Reduced Order Models. Ocean Engineering, 2020, 196, 106799.	1.9	9
47	Isogeometric analysis of acoustic scattering using infinite elements. Computer Methods in Applied Mechanics and Engineering, 2018, 335, 152-193.	3.4	8
48	Object-Oriented Programming in Field Recovery and Error Estimation. Engineering With Computers, 1999, 15, 90-104.	3.5	6
49	GANs enabled super-resolution reconstruction of wind field. Journal of Physics: Conference Series, 2020, 1669, 012029.	0.3	6
50	Influence of Tip Speed Ratio on Wake Flow Characteristics Utilizing Fully Resolved CFD Methodology. Journal of Physics: Conference Series, 2017, 854, 012043.	0.3	5
51	Potential and challenges of wind measurements using met-masts in complex topography for bridge design: Part II â€“ Spectral flow characteristics. Journal of Wind Engineering and Industrial Aerodynamics, 2021, 211, 104585.	1.7	5
52	Parallel methods for fluid-structure interaction. Lecture Notes in Computer Science, 1998, , 263-274.	1.0	4
53	Spline Based Mesh Generator for High Fidelity Simulation of Flow around Turbine Blades. Energy Procedia, 2015, 80, 294-301.	1.8	4
54	High Fidelity Computational Fluid Dynamics Assessment of Wind Tunnel Turbine Test. Journal of Physics: Conference Series, 2019, 1356, 012044.	0.3	4

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55	Mesoscale Numerical Modelling of Met-ocean Interactions. Energy Procedia, 2015, 80, 433-441.	1.8	2
56	Numerical Modeling Framework for Wind Turbine Analysis & Atmospheric Boundary Layer Interaction. , 2017, , .		2
57	Near wake region of an industrial scale wind turbine: comparing LES-ALM with LES-SMI simulations using data mining (POD). Journal of Physics: Conference Series, 2017, 854, 012044.	0.3	2
58	Demonstrating the impact of bidirectional coupling on the performance of an ocean-met model. Energy Procedia, 2017, 137, 443-451.	1.8	1
59	Potential and challenges of wind measurements using met-masts in complex topography for bridge design: Part I â€“ Integral flow characteristics. Journal of Wind Engineering and Industrial Aerodynamics, 2021, 211, 104584.	1.7	1
60	Reduced order models for finite-volume simulations of turbulent flow around wind-turbine blades.. Journal of Physics: Conference Series, 2021, 2018, 012042.	0.3	1
61	Error estimation based on Superconvergent Patch Recovery using statically admissible stress fields. International Journal for Numerical Methods in Engineering, 1998, 42, 443-472.	1.5	1
62	Object-Oriented Field Recovery and Error Estimation in Finite Element Methods. Lecture Notes in Computational Science and Engineering, 2000, , 283-317.	0.1	1
63	High-Fidelity Finite Element Mesh Generation for Fluid-Structure Interaction Analysis of Cerebral Aneurysms. , 2009, , .		1
64	Mixed Method for Isogeometric Analysis of Coupled Flow and Deformation in Poroelastic Media. Applied Sciences (Switzerland), 2022, 12, 2915.	1.3	1
65	On Interactions Between Wind Turbines and the Marine Boundary Layer. , 2017, , .		0
66	A Step Towards a Reduced Order Modelling of Flow Characterized by Wakes Using Proper Orthogonal Decomposition. , 2017, , .		0